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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,931	01/18/2002	Mark J. Uniacke	708-1010.1	1712

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EXAMINER	
BENGZON, GREG C	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/051,931	UNIACKE, MARK J.	
	Examiner	Art Unit	
	Greg Bengzon	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-8 and 11-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-8 and 11-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-4,6-8,11-13 are pending.

Priority

The effective date of the subject matter in the claims in this application is January 18,2002.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

Claims 1-4, 6-8, 11-13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 11 recite a limitation for ' a multiplex layer protocol *defining a number of layers*'. The claim language is broad and subject to misinterpretation as the claims do not indicate any defining characteristics and/or functionality of said layers. Thus a person of ordinary skill in the art would not be able to ascertain what layers are being referred to.

Furthermore, Claims 1 and 11 recite a limitation for 'determining those ports that represent valid termination points for trails, links and link connections in the subnetworks, whereby to generate trails interconnecting said connection termination points in different subnetworks'. The claim language is broad and subject to misinterpretation as the claims do not indicate any procedural steps in determining valid termination points and generating trails.

Claims 6,7, and 8 recite claim dependence on Claim 5, said Claim 5 being a cancelled Claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> **Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.**

Claims 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter (i.e. 'computer readable medium).

Claims 13 pertain to 'computer readable medium', which the Applicant Specifications (Page 13 Lines 20) define as a carrier wave or data signals embodied in a carrier wave. The Examiner notes that said carrier wave or data signals embodied in a carrier wave are non-statutory subject matter. The Examiner notes that absent some

physical context, a signal per se is an abstract idea in much the same way that a mathematical algorithm without context is an abstract idea.

The Examiner suggests that claim language indicating 'computer readable storage medium' is used for said Claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-8, 11,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taghadoss (US Patent 6052722) in view of Boer et al. (US Patent 5793765), hereinafter referred to as Boer .

Taghadoss discloses (re. Claims 1) a method of managing a communication network comprising a plurality of ports, modelled according to a multiplex layer protocol defining a number of layers, (Taghadoss - Figures 1-2, Column 9 Lines 40-50) , and a

network management system, the communication network being partitioned into a plurality of subnetworks. (Taghadoss - Column 1 Lines 35-65, Column 2 Lines 40-65) . Taghadoss disclosed (re. Claims 1,11) using the predetermined multiplex layer protocol to deduce and model higher layers of functions_off the given subnetwork, for the given traffic services (Taghadoss- Column 6 Lines 10-15), based on lower-level network elements (Taghadoss – Column 4 Lines 35-40).

Taghadoss does not disclose (re. Claims 1) representing one of the ports, and representing a capability of the port for carrying, according to the multiplex layer protocol, traffic services exiting the given subnetwork at the given port. Taghadoss did not disclose (re. Claim 1) determining those ports that represent valid termination points for trails, links and link connections in the subnetworks, whereby to generate trails interconnecting said connection termination points in different subnetworks.

Boer discloses a method for determining access points between subnetworks in a digital communications network. The network is partitioned into (abstractions of) subnetworks, with the status, in particular the transport capacity on a link to an adjacent network, of each subnetwork being indicated at so-called access points. (Boer-Figures 1-2) At these access points, properties of the network are grouped, i.e. network elements and their properties are represented in a functionally combined way at a higher abstraction level. By means of the combined representation of network elements

it is possible to determine a suitable link in a simple manner, without the need of using, in selecting the link, detailed information relating to the individual network elements. As a result, a substantial simplification in the control can be achieved. The repeated partitioning provides a substantially recursive procedure which expediently provides for a simplified determination of sublinks.

Boer discloses (re. Claim 1) generating, in respect of a said subnetwork, an off-network pointer exiting the subnetwork at one of said ports, whereby to establish a traffic carrying capability externally to the subnetwork, said generation performed by software in the system. (Boer - Column 2 Lines 30-65) Boer discloses that the pointer is first generated in one of said layers and functionality at other layers is generated in response thereto. (Boer - Column 3 Lines 20-45, Column 5 Lines 25-65) Boer disclosed (re. Claim 1) determining those ports that represent valid termination points for trails, links and link connections in the subnetworks, whereby to generate trails interconnecting said connection termination points in different subnetworks. (Boer - Column 2 Lines 30-65, Column 8 Lines 30-65) Boer disclosed representing a capability of the port for carrying traffic services exiting the subnetwork at the given port (Boer – Column 10 Lines 50-60)

Taghadoss and Boer are analogous art because they present concepts and practices regarding management of digitial communication networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the teachings of Boer regarding access points between networks into the method and

system of Taghadoss. The combination of Boer into Taghadoss would enable the system of Taghadoss to 1) generate, in respect of a said subnetwork, an off-network pointer exiting the subnetwork at one of said ports, whereby to establish a traffic carrying capability externally to the subnetwork, and 2) determine those ports that represent valid termination points for trails, links and link connections in the subnetworks, whereby to generate trails interconnecting said connection termination points in different subnetworks. The motivation for doing so would be, as Boer suggests, to allow for a network having central control to be coupled to a network having a distribute control. Selecting links in networks having a central control requires a type of control information which is different from that for networks having distributed control. The combination of Boer and Taghadoss offers the possibility of said networks to cooperate efficiently. (Boer - Column 9 Lines 45-50) Furthermore, the combination allows the access points to interrogate the respective subnetworks for the available transport capacity. (Boer - Column 10 Lines 45-60)

Claims 11,12 are rejected on the same basis as Claim 1.

The combination of Taghadoss and Boer disclosed (re. Claim 2) wherein the pointer is first generated in one of said layers and functionality at other layers is generated in response thereto. (Boer - Column 3 Lines 20-45, Column 5 Lines 25-65)

The combination of Taghadoss and Boer disclosed (re. Claim 3) wherein the generation of said off-network pointer is performed by software. (Boer – Column 4 Lines 60-65)

The combination of Taghadoss and Boer disclosed (re. Claim 4) further comprising identifying incomplete trails within a said partition. (Taghadoss - Column 1 Lines 60-65, Column 4 Lines 35-65, Column 6 Lines 40-65)

The combination of Taghadoss and Boer disclosed (re. Claim 6) wherein the valid termination points for trails, links and link connections are first generated in one of said layers and functionality at other layers is generated in response thereto. (Boer - Column 2 Lines 30-65, Column 8 Lines 30-65)

The combination of Taghadoss and Boer disclosed (re. Claim 7) wherein the generation of said valid termination points is performed by software. (Boer - Column 2 Lines 30-65, Column 8 Lines 30-65)

The combination of Taghadoss and Boer disclosed (re. Claim 8) further comprising identifying incomplete trails within a said partition. (Taghadoss - Column 1 Lines 60-65, Column 4 Lines 45-50, Column 6 Lines 40-65)

With respect to Claims 13 , the Applicant describes a computer readable medium for the method of Claim 1. Claim 13 is rejected on the same basis as Claim 1.

Response to Arguments

Applicant's arguments filed 08/09/2006 have been fully considered but they are not persuasive.

In the prior rejection the Examiner objected to Claims 5-8, and 12, with the intention of having the Applicant incorporate *the combined limitations of Claims 5-8, 12 as a whole* into the independent Claims 1 and 11. While the Applicant has incorporated the limitation of Claim 5 into the independent claims, the claim amendments are not sufficient to read over the prior art and continue to present USC 112 2nd paragraph issues, as shown in the rejection(s) above.

Furthermore, the Examiner has re-evaluated the claim limitations and determined that the limitations in Claims 6-8 are not sufficient to overcome the prior art as presented in the rejection above. In light of this re-evaluation, the Examiner is hereby withdrawing the Claim objections to Claims 5-8,12.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcb

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